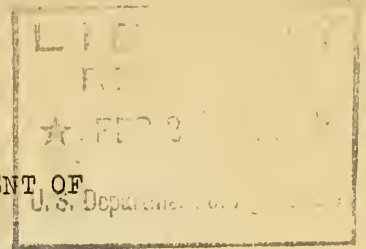


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SUMMARY REPORT ON DEFENSE WORK OF THE DEPARTMENT OF
AGRICULTURE



Throughout 1941, and with increasing speed since the outbreak of war, all agencies of the Department of Agriculture have been directing their work toward serving the defense needs of the nation. Adequate supplies of food, fiber, and forest products are rockbottom essentials in conducting defense or making war. Most of the services which government carries on to facilitate production of these things and the accumulation of reserve supplies to provide a margin of safety are carried on by agencies of the Department of Agriculture.

Favored by satisfactory weather conditions in most parts of the country, and assisted by the public agricultural services, the 6 1/2 million families that operate America's farms have served the nation well during the past year. The 1941 output of farm products was the largest on record. The preceding year's production -- that of 1940 -- was the largest on record up to that time. As the President pointed out in his radio address the night after Pearl Harbor, the United States enters this war with an asset no other nation has -- plenty of food. We have on hand the largest total supplies of food in the history of the United States. In addition, we have large supplies of feeds in the Ever Normal Granary and productive capacity on our farms to undertake turning out in 1942 for the third year in succession a record crop and livestock output. We have plenty for our own people, including the armed forces, and enough more to help feed our allies. The outbreak of war, threatening the import supply of some essential foods and agricultural raw materials, comes far enough ahead of the 1942 crop season so that we have time to revise the production goals upward wherever that is necessary. We are now studying these goals very carefully in the light of actual war and will plan increased production in any commodity or product where an increase appears advisable. I attach -- Appendix A -- a copy of our current report on the national food situation which gives in detail the situation with respect to supply of foods.

The agencies of the Department of Agriculture during the year undertook many new lines of work in order to help farm and forest operators turn out the things that the United States needed for defense. They also carried on a variety of auxiliary lines of work which forwarded the defense effort. I summarize the year's record of work accomplished under 12 headings as follows:

- (1) Assistance to farm families in producing Food for Freedom;
- (2) Assembling food and other agricultural materials for shipment under the Lend-Lease Act;

- (3) Helping citizens use food for better health and nutrition;
- (4) Locating new defense industrial plants;
- (5) Providing strategic and critical raw materials ;
- (6) Finding substitutes for imported raw materials not now obtainable.
- (7) Finding new defense uses for farm and forest products;
- (8) Handling the problems of price relationships in a defense economy;
- (9) Locating, acquiring, and servicing new military establishments;
- (10) Assisting in defense operations, including military and economic warfare;
- (11) Furthering the program for hemispheric solidarity;
- (12) Giving information to farm people in respect to current obligations of citizenship in a defense economy.

1. Assistance to farm families in producing Food for Freedom

Early in the year it was certain that major changes in the pattern of farm output were going to be necessary in order to meet the requirements of people in the United States and in Great Britain for strength-giving food. The people of the United States were working harder and longer hours in the defense effort. They needed more animal proteins, more vitamins, more minerals, in their diet. The people of Great Britain, engaged in all-out defense against all-out war, were on short commons for these same food elements. Their supplies had to be stepped up if they were to continue effective defense. The United States was their only source of necessary foods. On April 3, 1941, some two weeks after the passage of the Lend-Lease Act, the Secretary of Agriculture appealed to the farmers of the nation to step up output of the needed foods, and in order to furnish incentive, announced that the programs of the Department would be so managed as to support the prices of these foods at the following minimum levels (Chicago basis):

Hog cwt.	\$9.00
Dairy products (basis of butter lb.)	.31
Chickens lb.	.15
Eggs doz.	.22

Further incentives were provided early in July by a Congressional enactment (the Steagall Amendment to the act extending the life of the Commodity Credit Corporation) directing the Secretary, whenever he found it necessary to encourage expansion of production of non-basic agricultural commodities, to announce that fact, and thenceforth to manage the Department's programs, within the limits of available funds, in such a way as to support the prices of such commodities at a minimum of 85 percent of parity. Proclamations under this act were issued on September 8 for hogs, eggs, evaporated milk, dry skim milk, cheese, and chickens.

All the informational resources of the Department were employed to convey the facts concerning needed food production and the price supports offered by the national farm program to the farm people. Their response, as evidenced in the figures on 1941 crop and livestock output, was most generous. (I attach -- Appendix B -- December 19, 1941)

Agricultural production must be planned for far in advance. So while most of the workers of the Department were centering their efforts on helping farm people turn out record crop output in 1941, the economic analysts and administrative heads of the Department centered on determining what volume of farm products would be needed by this nation and its allies in 1942. Through July and August the planning process went ahead. It is described in the attached appendix C, the Secretary of Agriculture's radio address of September 8 announcing the 1942 agricultural production goals.

While the planning process was under way, the field services of the Department were being organized into State and county USDA Defense Boards in order to bring the maximum assistance of the public services to the farm people in carrying through their production programs. The attached appendix D, Secretary's Memorandum No. 921, of July 5, 1941, gives the details concerning the constitution and duties of these boards.

Starting September 15, a series of four regional meetings was held to bring together the members of all State Defense Boards and leaders of farm organizations and place before them the national goals for 1942. The attached appendix E, copy of Secretary of Agriculture's address at the regional meeting in Salt Lake City, Utah, indicates the way in which the task before agriculture was presented to these groups. Attached Appendix F, a general statement on the farm defense program supplied to all those attending the meetings, shows how the task was charted out State by State for the responsible officers of the public agricultural agencies.

In October the State USDA Defense Boards went over and approved the State goals of the 1942 Food for Freedom campaign. The county defense boards were advised of the county quotas for production. In November and the first half of December the goals were taken to every farmer in the country by one of his neighbors -- an AAA community or county committeeman -- and each farmer was urged to sign up a plan for his farm's production in 1942 which will contribute toward attaining the national goals. Attached appendix G, Form 606, is the farm plan sheet which has been filled out for virtually every farm in the United States.

While the planning for 1942 production goals and the sign-up of farmers to organize their 1942 production to meet those goals were under way the agencies of the Department were turning their attention to removing, as far as governmental action could do it, the barriers in the way of meeting the goals. Agricultural labor will be drained away for military service and work in industrial plants. New agricultural machinery

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cannot be produced in large enough volume to replace labor shortage for there will not be enough metals on hand after providing for military needs. Many supplies -- fertilizers, insecticides, fungicides, bale ties, jute bagging -- likewise will be in short supply.

The Office of Agricultural Defense Relations, using the services of experts in all branches of the Department, and of farmer planning committees throughout the country, prepared estimates of agriculture's minimum needs for machinery and supplies. These estimates then were presented to the Supply, Priorities and Allocations Board in the Office of Production Management as a basis for priorities orders and allocations that would meet the minimum needs and allotment of shipping space to bring in as much as possible of the needed materials that are imported such as jute and Chilean nitrate.

Facilities for processing and storing also must be present in order to make agricultural products available in form for use and the OADR has organized committees to work with the Office of Production Management and the War Department on matters of priority and tax amortization action on expansion or construction of new facilities for processing or storing agricultural commodities, and arrangements have been made for financing such facilities through Defense Plant corporation.

The largest possible allowance of metal for new farm machinery was given, but this would not be enough to meet the indicated needs. Therefore the State and county Defense Boards throughout the country have launched a campaign to make sure that every repairable piece of farm machinery now on hand is repaired and ready for use by the time it is needed in the spring. At the same time a campaign was inaugurated to collect scrap iron and steel from the farms in order to piece out the total steel supply.

On the farm labor front there has been an expansion of the statistical services to collect dependable information on the farm labor supply; the Department has encouraged expansion and strengthening of the farm placement service in the Bureau of Employment Security; it has assisted the Selective Service System in preparing instructions to local Selective Service Boards, clarifying agricultural deferments and basing them on farm skills, crops and areas most essential to the defense program; to provide a better supply of migrant labor the Farm Security Administration has expanded its mobile camp program; the Department has encouraged WPA, NYA and CCC to develop methods of teaching farm skills to all people not on farms; the Department has collaborated with the Office of Civilian Defense and the Department of Labor in developing plans for wider use of the work of city women and of older children in agriculture if that becomes necessary.

Services of virtually every agency in the Department are being drawn upon by farm people for technical information which will make it possible to increase output with limited labor and material supplies. The

facilities of the Farm Credit Administration and the Farm Security Administration are focussed on providing the needed credit. Farm Security Administration's programs of improving the health and the skill of low-income farm families are now paying dividends in greater productivity.

In areas where feed for livestock, poultry, and dairy production must be shipped in, a program for providing feed supplies out of the Ever Normal Granary and financing increased storage by farmer cooperatives is helping to relieve the strain on the transportation system and made sure that food supplies will be available. The electrical current supply brought to 1,400,000 additional farms during the REA program during the past seven years is being put to use in scores of ways to speed farm production without increasing the need for labor. In the Great Plains area a cooperative program of loans on stored feed is helping to build up an Ever Normal supply of forage which will greatly increase the livestock production in that area. The ranges on the national forests are being managed to help beef cattle reach their goals of increased marketings of cattle and increased wool production.

2. Assembling food and other agricultural materials for shipment under the Lend-Lease Act

The purchase, assembling and delivery at the ports of food supplied to other nations under the Lend-Lease Act is managed by the Department of Agriculture. Part of the supplies provided have been acquired through the loan program of the Commodity Credit Corporation: part are bought in the open market by Surplus Marketing Administration. More than 100 different agricultural commodities of a total value of over \$500,000,000, has been purchased in the open market up to December 1 for transfer under Lend-Lease. Over \$92,000,000 worth of commodities had been supplied from Commodity Credit Corporation stocks. Attached appendix H tabulates the purchases and the supplies out of loan stocks.

Great progress has been made in getting commodities in concentrated forms -- dried eggs, dry milk, citrus juice concentrates, vitamin concentrates, etc. Dairy scientists have developed methods of increasing the concentration of evaporated milk so as to put 30% more milk solids in a given amount of space. Chemists and home economists are beginning to develop new processes for dehydrating vegetables which will reduce their bulk to such an extent that they may become available for Lend-Lease shipment, if the British or other of our allies need them.

England's primary food needs have been met. The heavy shipments of American canned pork have made it possible to change the British rationing system, we are told by Howard Marshall, Director of Information of the British Food Ministry, who is at present in Washington. He tells us also that the American supply of evaporated and dried milk has made it possible to devote the British production of fluid milk to supplying the needs of children, nursing or expectant mothers, and hospital patients, so that these groups now have an adequate fluid milk ration. Britain needs still more of the high energy protein food than she has been getting. Minister of Labor Bevan told

Under Secretary Appleby and Administrator Evans when they were in England in September that if the British could ship in enough meat, milk and eggs, they could step up industrial production by 10% or more. However, shipping conditions do not now permit this.

3. Helping citizens use food for better health and nutrition

America's great potential strength in food supplies can become actual strength only if the people of the nation consume the food in right quantities and proportions. All Department of Agriculture agencies have cooperated to the hilt with the Director of Defense, Health and Welfare Services. The Department's Director of Extension is Assistant Director of Defense, Health and Welfare Services in charge of nutrition. The Department's nutrition experts provide much of the basic information for the national nutrition campaign. The Department's field services carry on much of the educational work in the campaign.

The Department's nutrition research people during the year have summarized the vitamin literature of the world for use in this campaign; they have derived new nutrition information in their own laboratories, particularly information relating to vitamin A sources and uses in preventing night blindness. They are now at work on the problem of dehydrating over 300 common foods so that they may be supplied in emergency rations and used for Lend-Lease shipments. They are trying to work out with the engineers of the Department improved plans for farm home dehydrators so as to overcome the difficulties in home food preservation that loom ahead because of lack of containers.

Through the Surplus distribution programs -- the Food Stamp and direct relief distribution -- more than 8 million members of public aid families are receiving better diets. In addition, nearly 5 million school children from lower income families receive additional food through free school lunches.

Department specialists have cooperated in organizing community food preservation centers have compiled a handbook for the use of people operating such centers. Homefood production and preservation has been stimulated for every one of the 581,000 families in the rehabilitation program carried on by the Farm Security Administration. The Rural Electrification Administration is establishing community nutrition centers in schoolhouses throughout the country which are serviced by REA lines. The market reporting service of the Department is concentrating on building up consumer market news services by radio and press to help the lower income city families get the maximum nutrition for each dollar spent for food.

4. Locating new defense industrial plants

The Department has advised the War Department and OPM plant site committee on location of defense factories in places where the agricultural population was too dense and industrial opportunities were needed and where the plants would be safest from bombing attack. Information provided by the Department has been responsible in part for the trend toward location of defense facilities inland. The superintendents of REA cooperatives have in some localities organized their subscribers to survey plant capacity and labor supply for "bits and pieces" types of defense material subcontracting. Once the plants are located in agricultural regions, the Department's services are invoked to resettle

the farm people who are displaced with as little disturbance and hardship as possible. In this work the Farm Security Administration and the land use planning committees organized by the State extension services and the Bureau of Agricultural Economics have cooperated.

5. Providing strategic and critical raw materials

Plant locations and resettlement of people forced off the land to make way for plants is only one phase of the industrial production problem in defense which levied upon the Department's services. Another involving many agencies and employees is the problem of assuring supplies of critical and strategic materials. In this field, we have carried on economic surveys to determine requirements and sources of supply for various raw materials. Examples are the Bureau of Agricultural Economics survey on wool and the Forest Service survey on wood pulp. Another phase of this work comprises the barter operations carried on by the Commodity Credit Corporation under which surpluses of vital materials, such as cotton, available in this country had been exchanged for supplies of vital materials such as rubber and tin not available here. A third phase is the location of supplies in this hemisphere of critical and strategic materials and assistance in the development of the potential sources. Scientists of the Bureau of Plant Industry and men of the Office of Foreign Agricultural Relations are especially active in this work. They are carrying through a rubber development plan under a special appropriation of \$500,000. Experts have made surveys of potential rubber growing areas in tropical America in 13 countries from Mexico to Peru. Three experiment stations are now working on cultural methods and bases of control. Ten million seeds of the hevea rubber tree have been collected and planted. Propagating material from superior strains of hevea from the West Indies is being increased in Latin America.

Cooperative work with the Bureau of Narcotics and commercial drug firms has assured seed supplies of poppy, the plant used in making morphine. A new method of extracting which eliminates much of the hand labor used in the Orient has been developed. Surveys are now under way to determine areas in central and South America best suited for growing cinchona, the bark of which is used in making quinine. Surveys are under way for revealing needs for and supplies of botanicals used in making drugs. Already we are assured enough seed of belladonna, stramonium, and digitalis. Supplies have been located or necessary moves are being made to assure supplies of special fibers essential to the Army and Navy. Besides abaca and common hemp these include flax, kapok, and extra long-staple Sea Island cotton.

The Forest Service is building roads to deposits of vital minerals in and adjacent to the national forests. The REA is supplying power to mines working deposits of such critical materials as cinnabar, the ore from which mercury is extracted. The AAA program is being revised to stimulate the production of naval stores from southern pine.

6. Finding substitutes for imported raw materials
not now obtainable

War-time stoppage of transport creates the necessity for many substitutions of materials. Many of these substitution problems fall within the scope of the Department's research. Increasingly through the year chemists, engineers, entomologists, and plant scientists were drawn into work on these problems.

In some cases the action programs of the Department were employed to build up supplies of the materials substituting for those formerly imported. One example is the castor bean seed production program. Through the cooperation of several agencies of the Department a stored supply of castor beans was planted in several Texas counties and a supply of seed is now on hand sufficient to plant an acreage in 1942 that will yield enough beans to relieve greatly the pinch of shortage in the supply of drying oils caused by restricted importation of tung oil from the Far East. While the seed supply was being assured engineers were developing special machinery to hull castor beans and make oil extraction easier. Another example is the discovery by Department chemists and engineers of a method of treating short staple cotton to enable its use as a substitute for linters in the manufacture of explosives. Thanks to the work of chemists and engineers, a process is now on hand for producing from sweet potatoes the root starch needed to fill in the gap caused by the let-down in imports from the Far East. Other domestic substitutes for unavailable imports that have been developed by Department research and engineering work include a hard wax that is a by-product of cane sugar production for use in treating naval cordage, fiber flax, rubber extenders to be added to natural or synthetic rubber to increase the yield of rubber without affecting its properties -- these are produced from domestic vegetable oils. Research also has developed methods of making industrial alcohol from available agricultural raw materials using present facilities, for turning out from agricultural material butylene glycol, a chemical adapted to many of the present uses of glycerine and having possibilities in the production of synthetic rubber. Dairy chemists have developed processes for making alcohol and a lacquer coating for the insides of metal containers -- both from cheese whey.

7. Finding new defense uses for farm and forest products

As in World War I, the Department's scientists have been called on for help in making farm and forest products serve scores of military uses. Following are some examples of problems in which our scientists have been working: Treatment of cotton to make it a durable material for use in sandbags and military fabrics; fireproofing of baled cotton and determination of the usefulness of baled cotton as an insulation against bullets and shell and bomb fragments; use of cotton plastics in blackout shades and use of cotton fabrics as blackout cloths; rosin oil for use in gas masks for animals;

the use of naval stores in flame thrower fuels, the use of turpentine in making smoke screens; developing camouflage materials from plant bases, preserved plant specimens, portable mats of living plant materials, and suitable plantings of living plants. Modification and conversion of wood including wood and plywood for use in training and combat planes as a substitute for metals; wood cellulose for nitration into explosives; special charcoals for gas masks; wood as a substitute for raw cork for shell closing plugs; structural plywood for military structures; design of specialized shipping containers for transport of military material.

Chemists have developed the production of penicillin, an antiseptic used for war wounds, from agricultural raw materials by the action of a certain variety of mold on sugar solution.

Home economists (though this does not come directly in the field of military uses for farm products) have designed clothing for women workers in defense plants. These designs are now widely used in the defense industries employing women workers.

8. Helping Handle the Problems of Price Relationships in a Defense Economy

The surest guard against harmful inflation is the production and marketing of a large enough supply so that scarcity in the presence of a lot of spending-dollars in the pockets of the people does not cause the people to bid up the price of each unit of the thing they want. This being true, the record agricultural production of 1940, the new record production of 1941, and the planned third successive record production of 1942 will make a great contribution toward preventing inflation.

Besides assisting farmers in turning out the production which is the surest guarantee against inflation, the Department of Agriculture has collaborated with the Office of Price Administration with counsel from all its corps of expert price and demand analysts and from its machine of more than 300,000 farmers and upwards of 500 professional statisticians which keeps tabs on the output and storage supplies of farm products.

To keep the speculators who have been one of the main inflationary influences in previous periods like the present from harming the national interest by running wild on the commodities markets, has been practically the sole job of the Commodity Exchange Administration. The men managing this regulatory agency have brought about changes in the operations of the futures markets and, although not expressly directed by law, have secured the adoption

of safeguards such as increased margins on speculative trading and reduced price fluctuation limits. Early in May, 1941 Secretary Wickard asked the eight supervised exchanges to take such measures to prevent excessive speculation. Committees of the exchanges have since worked with the Commodity Exchange Administration to accomplish this objective, and recently the CEA has secured the cooperation of a committee representing the four national farm organizations to work with the exchange committees and the CEA on these problems. The margin requirements have been increased on speculative trading in cottonseed oil, soy beans and other commodities. The permissible price fluctuations limits on cotton and grains have been sharply reduced. Surveys have been made of the futures market positions of both small and large traders in butter, cottonseed oil, lard, soy beans and cotton, and the information is being utilized by the Office of Price Administration.

To curb speculation in lands which had such disastrous consequences 25 years ago, the mortgage credit agencies of the Farm Credit Administration are continuing to loan on the basis of appraised normal value and thus are taking out any government credit base for a speculative inflation in land values. The Farm Credit Administration has gone further and has asked private lending agencies to follow the same appraisal policy. A committee of large lenders has been formed to work with the FCA, keep abreast of the land value situation, and try to follow sane lending practices.

9. Services for Military Establishments

In carrying on so swiftly and so efficiently the great expansion of military and naval training and production centers that has taken place since May, 1940, the Army and Navy have called for a wide variety of services from the Department of Agriculture agencies. These agencies have responded as reported below:

The first problem was that of locating and acquiring the land. Nearly a million acres of it has been transferred from publicly owned land supervised by the Forest Service or Soil Conservation Service. The remainder has had to be acquired by purchase from private owners. In the buying of this land, the Department has given help from the Farm Credit Administration in appraising values of farm land to be bought, from the Land Acquisition Division of the Soil Conservation Service, and the Forest Service in conducting the actual purchase. Altogether there has been assistance by way of transferring, appraising, or purchasing in the acquisition of over 4 million acres for military and naval establishments.

After farm land is purchased, there comes the problem of resettling the persons farming on the land. Land use planning committees and Farm Security Administration grants and loans have been called on for assistance in this respect: to help the 12,500 families so far displaced from the land by new military

establishments in reestablishing themselves elsewhere.

The problem of power supply for military camps, training stations, etc., has been put up to Rural Electrification Administration cooperatives in a number of places. The cooperatives in every instance have responded and have run lines to the camps oftentimes charging a lower rate for current than private power industries were willing to grant. Mobile generators developed by REA engineers are being used as emergency power supply sources at a number of military establishments. Where the REA cooperatives have not been called on for current supply, the REA engineers have oftentimes been called on for assistance in negotiations with private power suppliers.

The control of erosion at camp sites is a major problem in many places. In coping with this problem many groups of Soil Conservation Service technicians have been detailed to work with military and naval authorities.

Control of wood destroying insects is imperative in order to lessen the cost of camp maintenance and in this field the entomologists of the Department have made their contribution by way of providing information and specifications for building insect-proof structures.

The food supply of the men in the military establishments must be wholesome and of good quality. In this field of food inspecting and quality certification, the highest authorities are the inspectors of the Department of Agriculture in the Bureau of Animal Industry and the Agricultural Marketing Service. These services have been enormously expanded in order to guarantee the wholesomeness and quality of food supply of soldiers, sailors and marines.

The housing of the swarms of civilians who gather in around the defense establishments to carry on necessary services, has become a responsibility of public agencies. Among these is the Farm Security Administration. Funds were allocated to the Farm Security Administration from two urgent deficiency appropriation bills and from the Lanham Act appropriation. The Farm Security Administration has handled most of the temporary defense housing. To date 16,000 units in trailers, dormitories, and portable houses are scheduled for defense workers in congested areas. Of these nearly 6,000 units have been completed. The Farm Security Administration has also provided 1,400 units of permanent housing on designation by the Federal Works Agency.

The home economists have provided the War Department with cost of living data for families at maintenance level in defense areas to be used in wage determinations.

This list is by no means exhaustive but it is indicative of the wide variety of services rendered the military and naval establishments of the nation by the agencies of this Department.

10. Assisting in Defense Operations, including
Military and Economic Warfare

A variety of assistance in military and naval operations is given by specialists in the services of Department of Agriculture agencies. The main lines are as follows: All of the cartographic resources of the Department have been made available. Virtually all of the land surface of the United States has been flown for aerial photographic purposes by the Agricultural Adjustment Administration and the Soil Conservation Service. Military men are making use of these maps.

The foresters of the Department have been called upon for actual services and for information of many types. The airplane warning network in the Western States where much of the land area is in national forests draws upon the services of many Forest Service employees. Fire protective services in the forests are mobilized to place a heavy guard upon points where forest fires might be set for purposes of screening approach of enemy aircraft. Information useful in the operation of field radio and telephone services that has come out of the Forest Service experience in carrying on communications in broken forested country, on training and operations of parachute troops (for many years forest fire fighters have been landed on incipient forest fire sites by parachute and supplies have been parachuted to them); and information on ski troop operations all have been provided.

The animal disease control services of the Bureau of Animal Industry have been drawn on by the remount contingents of the military to clean up such diseases as dourine and encephalomyelitis of horses in order that usable animals may certainly be purchased for remount purposes.

Several groups of scientists have worked out methods of grassing air fields, and using plant materials in camouflage operations. Some of the camouflage techniques developed by agricultural scientists and field workers call for permanent plantings around fixed military establishments. Others provide for the treatment of living plant materials so that for a considerable period after they are cut from parent shrub or tree they will not wither and become useless in camouflage work.

All of the information gathered over a period of 50 years by Department entomologists on methods of controlling insects that attack men and animals has been provided to the military forces.

Information for use in the short-wave broadcasts from the United States is provided to the Office of Coordinator of Information. The latter office reports that the factual statements concerning the strength of the United States in food supplies, the accumulation here of reserves available to

the conquered countries once the yoke is thrown off, and also concerning the facts available here on the looting of the conquered countries' food supplies by the Axis have had large effect when transmitted by short-wave to the European continent.

For the Administrator of Export Control, and later the Economic Defense Board, Army, and Navy, special reports have been prepared on the economic vulnerability of Japan in food, fats and oils, fibers, rubber, and other products. These reports disclose the location and character of the storehouses for supplies subject to the attack by air raid. A large number of confidential statistical and analytical reports on internal conditions of European countries have been compiled. The latest of these is a comprehensive report on the entire food situation in Europe.

11. Maintaining Hemispheric Unity

Agricultural relationships are the key to the economic phase of the Pan-American program for hemispheric unity which is an essential element in the defense of every American republic. To establish firmer trade bases, a great movement is under way for the development of supplementary agricultural and forest production within the nations to the southward. In this movement, the work of men of the Bureau of Plant Industry, the Office of Experiment Stations, the Office of Foreign Agricultural Relations, and the Forest Service is enlisted.

Additionally, this Department takes part in the work of negotiating the trade agreements that are so important to hemispheric unity, of the Export-Import Bank and of the Office of the Coordinator for Commercial and Cultural Relations with the American Republics.

Equally as important as the work our men are called on to do in the southern nations, is the educational work they are called on to do here in the United States. Owing to the overwhelming importance of agricultural relationships in the development of hemispheric solidarity, American farm people must be furnished with the facts about the hemisphere, its people, and their problems. This task is being carried on by the Agricultural Adjustment Administration through information sent to 135,000 committeemen and used in local meetings, through the extension services, and through the Department's Office of Information. This educational work has occupied much of the time of the central extension and information staffs of the Department and the information staff of the Agricultural Adjustment Administration.

12. Education on the Obligations of Citizenship

Another type of educational work in which this Department has been called upon to take leadership is that of providing an opportunity for citizens to think through the obligations of citizenship in our democracy. The defense emergency found farm people already organized into a network of discussion groups for the purpose of formulating their own ideas on national and local policy. These groups were organized by the Land Grant Colleges which frequently called upon the Department for materials to aid in the local discussions. Responding to a demand for such materials on the part that citizens should play in defense, this Department has issued reading lists, and called together a group of distinguished scholars and educators to formulate an outline of the issues at stake for democracy and the individual citizen in the present world crisis. These materials have been presented in mimeographed form and through radio broadcasts as an aid to farm people in thinking through their democratic beliefs.

Besides carrying on the educational work on the obligations of citizenship in a democracy, the field forces of the Department have joined in many of the conservation and training campaigns initiated by the Office of Civilian Defense Relations. The county farm and home agents organized in the rural areas: for example, the aluminum collection campaign of last July. They have been very active in conducting first aid, and fire fighting courses for civilian defense volunteers in the farm areas also.

So much for the work that has been done in the past year by Department of Agriculture agencies to assist the national defense. Not all of the lines of work have been so successful as we would have liked them to be.

In the management of the public services to help farm people produce Food for Freedom, our performance has not been 100 percent. One example is the fact that many farm producers did not get the increased return for production of canning tomatoes that was paid to the canners in order to stimulate output. We failed to provide machinery to make sure that the canners passed the increased payments of around \$3.00 per ton established by the SMA purchase level on canned tomatoes, back to the growers of the tomatoes. For another example, the Farm Security Administration was not able to provide as many mobile labor camps as could have been used in order to assure adequate labor supply, particularly in the eastern truck crop sections.

In the health and nutrition phases of the defense effort we fell short of providing as comprehensive a set of plans for community food preservation and for the operation of community feeding services as could have been used. The dehydration research could not be organized rapidly enough to provide information which could be used in preserving part of this year's record outturn of vegetables. The augmentation of diets of low income families through the

Food Stamp, direct relief distribution, and School Lunch programs was not extended into all communities of the nation.

On the research front, where we were searching for substitutes for unavailable raw materials, progress was not so rapid as desirable in several projects. The projects on producing butadiene, the base for synthetic rubber, out of two chemicals derived from agricultural raw materials -- butylene glycol and furfural -- did not reach the point of success; nor did the projects on production of glycerine from starch or glucose derived from agricultural raw materials, making adhesives from proteins derived from peanuts and alfalfa, development of treatments and construction of cotton fabrics to replace jute, or development of processes for making plastics from lignin, a constituent of many agricultural plants.

The clothing design project did not produce the whole range of designs for clothing for women in war work which are needed.

Entomological knowledge was not sufficient to provide absolutely certain methods of preventing efficiency-decreasing irritation of troops in the field by a variety of insects.

Since the declaration of war, of course, we are re-surveying our whole program. We want to concentrate more manpower of the Department personnel on the solution of the problems outlined above where progress was not good enough during the year.

In addition, we are taking on a number of new projects made more urgent by the situation of a country in active war.

For example, in the services necessary to assist farm families in producing Food for Freedom, we are moving to resurvey the goals and make sure that they fit the war-time requirements of the nation. It is apparent that we shall have to provide for more production than previously contemplated of fats and oils, and perhaps of sugar. New drafts on the supply of vegetables make it necessary to raise our sights on these items. Our technical services will have to come into wider application in order to enable farmers to reach these higher goals. Our work on helping get farm labor supply must be speeded through the mobile camp program of the Farm Security Administration and the coordinating work of the local land use planning committees. More cooperative financing of supplies and materials through the FSA and FCA and more arrangements for cooperative use of supplies and materials and of breeding livestock with proved capacity for high production, must be made. The health program for the low income groups is more needed than ever. We must work out methods of substituting for scarce supplies and materials.

In the health and nutrition field our people already are speeding up the work on dehydration and on such items as the development of fireless cookers for use in blackouts.

It seems that probably 25,000 more farm families must be given assistance in relocating and staying on the land as farm producing units when they are moved out to provide new sites for industrial defense plants and military establishments.

New problems came up in substitution for unavailable raw materials. The home economists are tackling the matter of finding substitutes for many metal articles used in the household; the chemists and plant scientists are speeding their efforts to develop new sources of supply for starches, rubber-yielding materials, drying and soap oils, glycerine, abaca. Plans for a guayule rubber project are coming close to the point of actual application.

In the field of assistance in military operations, the Forest Service is making the provision of lookout and airplane spotting points on the West Coast its first duty, is redoubling fire control measures at critical points. All the farm records of the AAA, which cover more than 90% of the farms in the country, are available to the military forces. The technicians of the REA, which goes into low gear on new construction owing to the shortage of copper, are available to the military forces, as are technicians of the Forest Service.

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